

FIG. 2

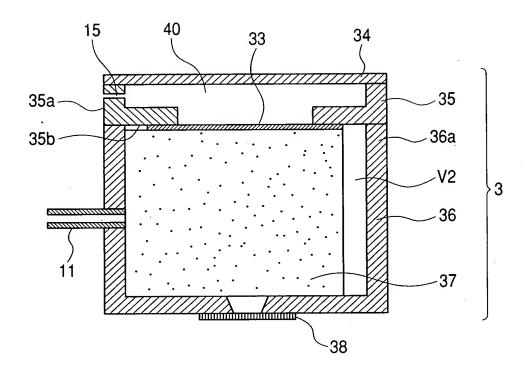


FIG. 3

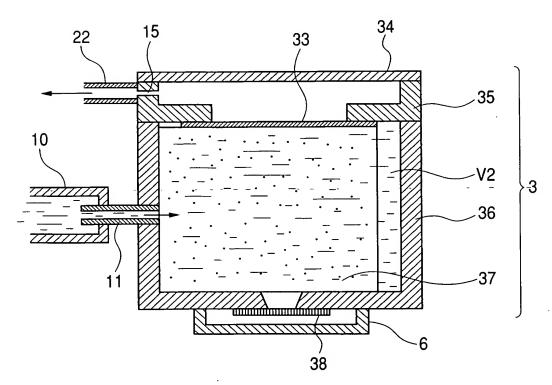


FIG. 4

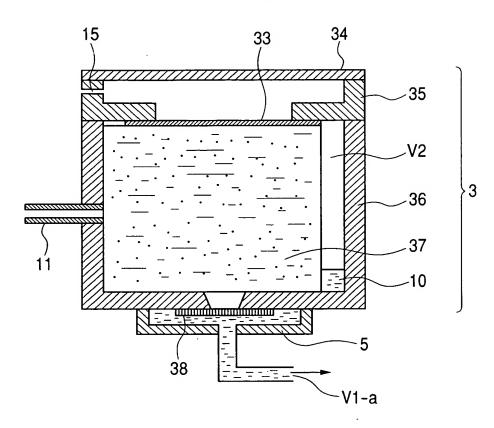
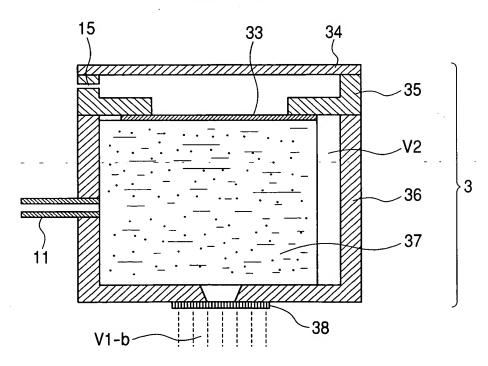
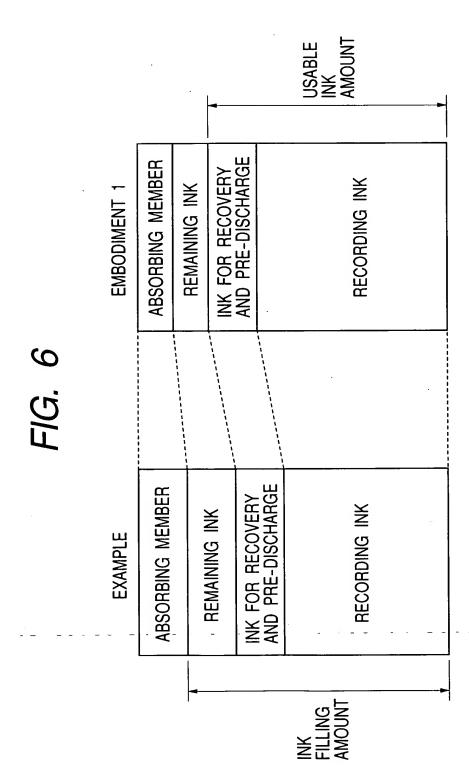


FIG. 5





USABLE INK AMOUNT

INK FOR RECOVERY AND PRE-DISCHARGE ABSORBING MEMBER AIR ACCUMULATION REMAINING INK RECORDING INK **EMBODIMENT 1** FIG. 7 INK FOR RECOVERY AND PRE-DISCHARGE ABSORBING MEMBER AIR ACCUMULATION REMAINING INK RECORDING INK EXAMPLE

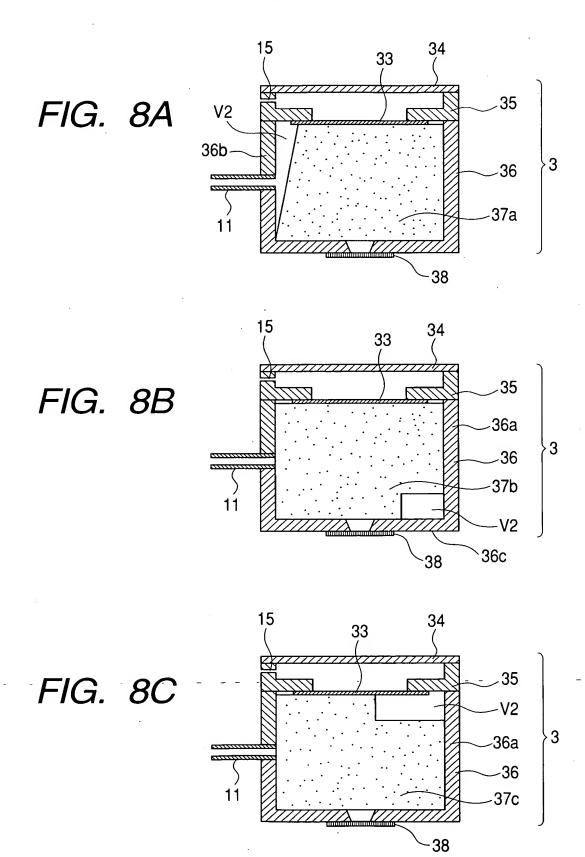
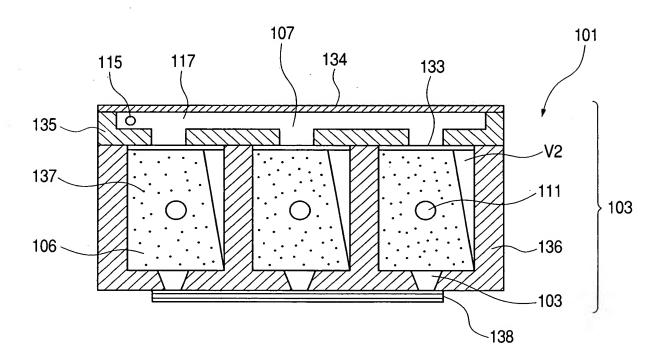
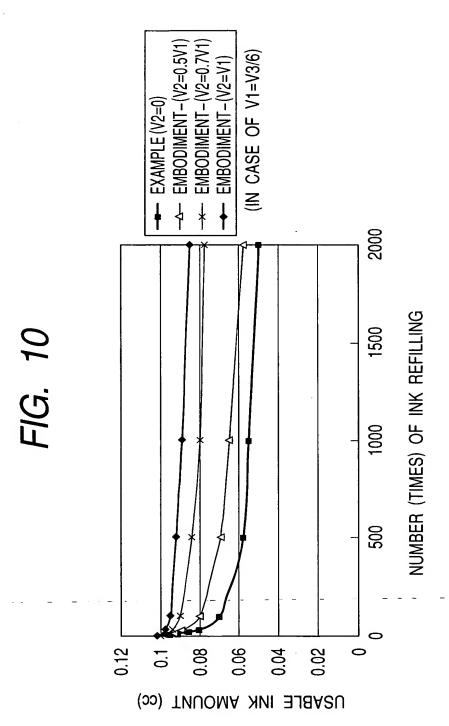
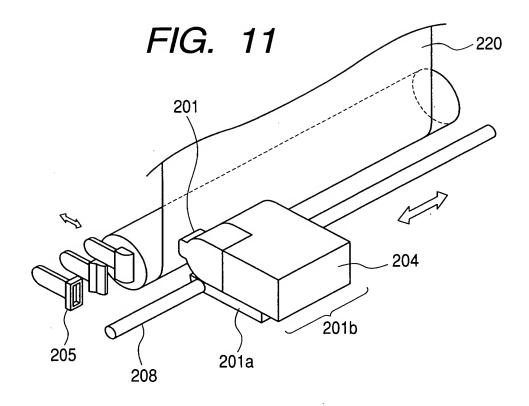
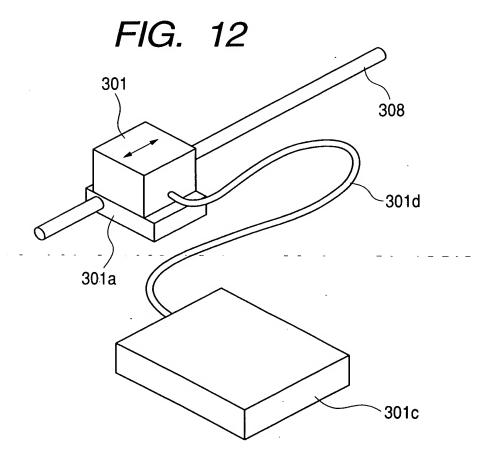


FIG. 9









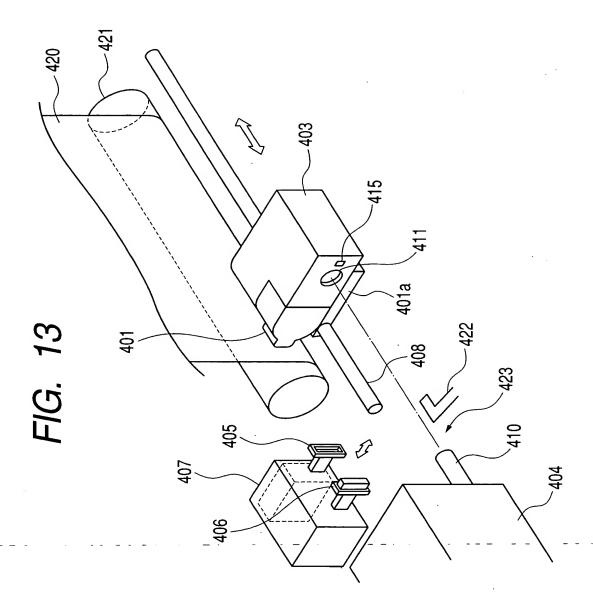


FIG. 14

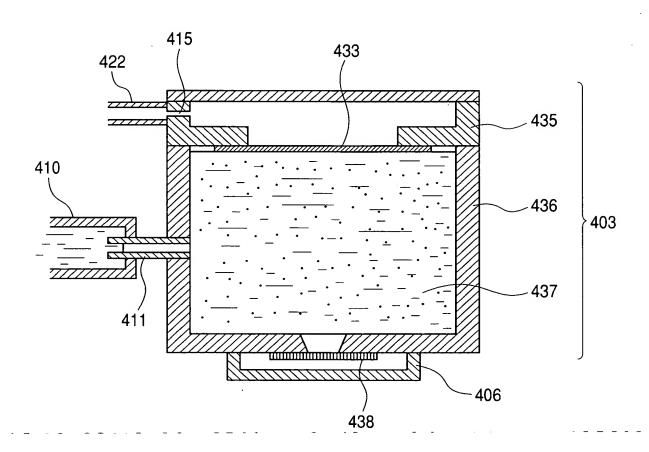
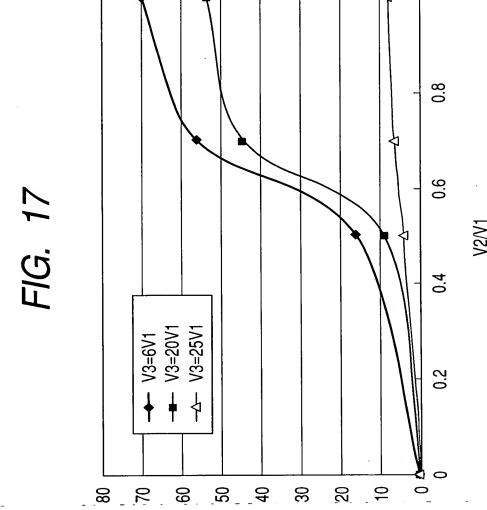


FIG. 15C	INK REFILLING		ABSORBING MEMBER	AIR ACCIMIII ATION		DEMAINING INK			USABLE INK	
							+		·	
FIG. 15B	INK REFILLING		ABSORBING MEMBER	AIR ACCUMULATION	BEMAINING INK			USABLE INK		
					/	/		•		
FIG. 15A	INK FILLING	(FIRST TIME)	ABSORBING MEMBER	REMAINING INK		-	-	USABLE INK	-	· .
							Y Z	AMOUNT		-

FIG. 16

5 0.021 0 0.12 0.058 5 0.021 0.0147 0.12 0.058 7 0.021 0.021 0.12 0.085 8 0.021 0.021 0.02 0.085 9 0.021 0.042 0.208 0.266 10 0.021 0.042 0.266 0.226 10 0.021 0.042 0.301 0.301 10 0.021 0.042 0.319 0.319 10 0.021 0.025 0.229 0.229 10 0.0105 0.525 0.229 0.234 10 0.021 0.021 0.021 0.525 0.234 10 0.021 0.021 0.525 0.234 0.238	RELATI V1, V2,	RELATION OF V1, V2, V3	V1(cc)	V2(α)	V3(cc)	INK USABLE AMOUNT (∞) AFTER 2000 TIMES	IMPROVEMENT RATE (%) OF INK USABLE AMOUNT RELATIVE TO V2=0
V2/V1=0.5 0.021 0.0105 0.12 0.058 V2/V1=0.7 0.021 0.0147 0.12 0.078 V2/V1=0.7 0.021 0.021 0.02 0.085 V2/V1=0 0.021 0.021 0.042 0.208 V2/V1=0.5 0.021 0.0105 0.42 0.226 V/V12=0.7 0.021 0.042 0.301 V2/V1=1 0.021 0.021 0.42 0.301 V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=0 0.021 0.025 0.22 V2/V1=0.5 0.021 0.0105 0.525 0.229 V2/V1=0.7 0.021 0.0147 0.525 0.234 V2/V1=0.7 0.021 0.021 0.0525 0.234		V2/V1=0	0.021	0	0.12	0.05	0
V2/V1=0.7 0.021 0.012 0.078 V2/V1=1 0.021 0.021 0.12 0.085 V2/V1=0 0.021 0.042 0.208 V2/V1=0.5 0.021 0.0105 0.42 0.226 V2/V1=0.7 0.021 0.0147 0.42 0.301 V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=0 0.021 0.025 0.22 0.22 V2/V1=0.5 0.021 0.0105 0.525 0.229 V2/V1=0.7 0.021 0.0105 0.525 0.234 V2/V1=0.7 0.021 0.021 0.025 0.234	70 0/1	V2/V1=0.5	0.021	0.0105	0.12	0.058	16
V2/V1=1 0.021 0.021 0.12 0.085 V2/V1=0 0.021 0.042 0.208 V2/V1=0.5 0.021 0.0142 0.226 V2/V1=0.7 0.021 0.0147 0.42 0.301 V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=0 0.021 0.025 0.22 V2/V1=0.5 0.021 0.0105 0.525 0.229 V2/V1=0.7 0.021 0.0147 0.525 0.234 V2/V1=1 0.021 0.021 0.525 0.234	\0=6V	V2/V1=0.7	0.021	0.0147	0.12	0.078	56
V2/V1=0 0.021 0 0.42 0.208 V2/V1=0.5 0.021 0.0105 0.42 0.226 V/V12=0.7 0.021 0.0147 0.42 0.301 V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=0 0.021 0.025 0.22 V2/V1=0.5 0.021 0.0105 0.525 0.229 V2/V1=0.7 0.021 0.0147 0.525 0.234 V2/V1=0.7 0.021 0.021 0.525 0.234		V2/V1=1	0.021	0.021	0.12	0.085	70
V2/V1=0.5 0.021 0.0105 0.42 0.226 V/V12=0.7 0.021 0.0147 0.42 0.301 V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=0 0.021 0 0.525 0.22 V2/V1=0.5 0.021 0.0105 0.525 0.229 V2/V1=0.7 0.021 0.0147 0.525 0.234 V2/V1=1 0.021 0.021 0.525 0.234		V2/V1=0	0.021	0	0.42	0.208	0
V/V12=0.7 0.021 0.0147 0.42 0.301 V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=0 0.021 0 0.525 0.22 V2/V1=0.5 0.021 0.0105 0.525 0.229 V2/V1=0.7 0.021 0.0147 0.525 0.234 V2/V1=1 0.021 0.021 0.525 0.234	7/00 0/1	V2/V1=0.5	0.021	0.0105	0.42	0.226	6
V2/V1=1 0.021 0.021 0.42 0.319 V2/V1=0 0.021 0 0.525 0.22 V2/V1=0.5 0.021 0.0105 0.525 0.229 V2/V1=0.7 0.021 0.0147 0.525 0.234 V2/V1=1 0.021 0.021 0.525 0.238	V3=ZUV I	V/V12=0.7	0.021	0.0147	0.42	0.301	45
V2/V1=0 0.021 0 0.525 V2/V1=0.5 0.021 0.0105 0.525 V2/V1=0.7 0.021 0.0147 0.525 V2/V1=1 0.021 0.021 0.525		V2/V1=1	0.021	0.021	0.42	0.319	53
V2/V1=0.5 0.021 0.0105 0.525 V2/V1=0.7 0.021 0.0147 0.525 V2/V1=1 0.021 0.021 0.525		V2/V1=0	0.021	0	0.525	0.22	0
V2/V1=0.7 0.021 0.0147 0.525 V2/V1=1 0.021 0.025	1/0 05/14	V2/V1=0.5	0.021	0.0105	0.525	0.229	4
0.021 0.021 0.525	ACZ=CA	V2/V1=0.7	0.021	0.0147	0.525	0.234	9
		V2/V1=1	0.021	0.021	0.525	0.238	80



IMPROVEMENT RATE (%) OF INK USABLE AMOUNT RELATIVE TO V2=0